believed this process would allow third parties to more readily acquire spectrum for varied uses, enable these parties to take advantage of the efficiencies of site-by-site licensing, and streamline the Commission's spectrum management responsibilities.[107] In September 2000, the Commission completed the auction of the 700 MHz Guard Band spectrum.[108] However, in the Auction Reform Act of 2002, Congress directed the Commission to postpone auctioning the remaining thirty megahertz of the upper 700 MHz spectrum (747-762 MHz/777-792 MHz) until resolution of the 800 MHz public safety interference issues that are the subject of the instant rule making proceeding.[109]

C. 900 MHz Band

42. In 1986, based on experience with the pool structure in the 800 MHz band, the Commission adopted the same pool structure for the 900 MHz band land mobile spectrum and established the SMR, B/ILT Pools.[110] Given that success of inter-category sharing in the 800 MHz band, the Commission concluded that inter-category sharing should be implemented in the 900 MHz pool channels.[111]

43. The 900 MHz SMR service[112] was established in order to alleviate congestion in the 800 MHz SMR band.[113] To expedite service in major markets where demand for SMR service was greatest, the Commission elected to use a two-phase licensing process. In Phase I, licenses were assigned in forty "Designated Filing Areas" (DFAs) comprised of the top fifty markets. Following Phase I, the Commission

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spectrum be allotted for commercial use. *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5316 ¶ 36; 47 U.S.C. § 337(a)(2).

[107] *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5312-13 ¶¶ 27-28.

[108] *See* 700 MHz Guard Band Auction Closes; Winning Bidder Announced, *Public Notice*, 15 FCC Rcd 18026 (WTB 2000) (Auction No. 33).

[109] The Auction Reform Act of 2002, Pub. L. No. 107-195, 116 Stat. 715, § 2(4) (2002). Pub.L. 107-195 § 2(4) (Auction Reform Act of 2002) provided that: "The Federal Communications Commission is also in the process of determining how to resolve the interference problems that exist in the 800 megahertz band, especially for public safety. One option being considered for the 800 megahertz band would involve the 700 megahertz band. The Commission should not hold the 700 megahertz auction before the 800 megahertz interference issues are resolved or a tenable plan has been conceived." Previously, Section 309(j)(14) of the Communications Act required the Commission to assign spectrum recovered from broadcast television using competitive bidding and envisioned that the Commission would conduct an auction of this spectrum prior to September 30, 2002. *See* 47 U.S.C. § 309(j)(14).

[110] *See* Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems Amendment of Parts 2, 15, and 90 of the Commission's Rules and Regulations to Allocate Frequencies in the 900 MHz Reserve Band for Private Land Mobile Use Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite Service for the Provision of Various Common Carrier Services, GEN Docket No. 84-1231 RM-4812, GEN Docket No. 84-1233 RM-4829, GEN Docket No. 84-1234, *Report and Order*, 2 FCC Rcd 1825 ¶ 46 (1986). We observe that the Commission suggested that the pool framework would only be for a limited time period. *Id.*

[111] *Id.* at ¶ 52.

[112] The "900 MHz" SMR band refers to spectrum allocated in the 896-901 and 935-940 MHz bands. *See* 47 C.F.R. § 90.603.

[113] *Id.* at ¶ 46.

envisioned licensing facilities in areas outside these markets in Phase II. In the meantime, however, licensing outside the DFAs was frozen after 1986, when the Commission opened its filing window for the DFAs.[114]

44. In 1993, the Commission adopted a *First Report & Order and Further Notice of Proposed Rulemaking* in PR Docket 89-553, modifying its Phase II proposal and seeking comment on whether to license the 900 MHz SMR band to a combination of nationwide, regional, and local systems.[115] Shortly after the *First Report & Order/Further Notice*, Congress amended the Communications Act to reclassify most SMR licensees as CMRS providers and establish the authority to use competitive bidding to select from among mutually exclusive applicants for certain licensed services.[116] Accordingly, the Commission deferred further consideration of Phase II and incorporated the 900 MHz docket (as well as the companion docket relating to 800 MHz SMR),[117] into its CMRS proceeding to ensure that the regulation of all SMRs would be consistent with the regulation of competing CMRS services such as cellular and PCS[118] and to consider the impact of auction authority on the record of the pending 900 MHz proceeding.[119]

45. In the *CMRS Third Report & Order*, the Commission further revised its Phase II proposals and established the broad outlines for the completion of licensing in the 900 MHz SMR band. The Commission concluded that (1) the 900 MHz SMR band would be licensed in twenty ten-channel blocks using MTAs as service areas; (2) licensing of mutually exclusive applicants for this spectrum would be based on competitive bidding; and (3) incumbent licensees in the band would retain the right to operate under their existing authorizations, but would be required to obtain the relevant MTA license (or obtain the consent of the MTA licensee) to be able to expand their systems.[120] In 1996 the Commission

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[114] *See* Private Land Mobile Application Procedures for Spectrum in the 896-901 MHz and 935-940 MHz Bands, Public Notice, 1 FCC Rcd 543 (1986). In 1989, the Commission adopted a Notice of Proposed Rule Making in PR Docket 89-553, proposing to begin Phase II licensing of SMR facilities nationwide. The NPRM contained proposals intended to add flexibility to SMR systems. The Commission continued its freeze on licensing outside the DFAs while the rulemaking was pending, but some DFA licensees elected to become licensed for secondary sites (i.e., facilities that may not cause interference to primary licensees and must accept interference from primary licensees) outside their DFAs to accommodate system expansion. Amendment of Parts 2 and 90 of the Commission's rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, *Notice of Proposed Rulemaking*, PR Docket No. 89-553, 4 FCC Rcd 8673 (1989).

[115] *See* Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, *First Report and Order and Further Notice of Proposed Rulemaking*, PR Docket No. 89-553, 8 FCC Rcd 1469 (1993) (*Phase II First Report & Order & Further Notice*).

[116] Omnibus Budget Reconciliation Act of 1993, Pub.L. No. 103-66 (Budget Act), § 6002(b), 107 Stat. 312, 392 (1993) (codified at 47 U.S.C. § 332).

[117] Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *Further Notice of Proposed Rulemaking*, PR Docket No. 83-144, FCC 94-271, 59 Fed.Reg. 60,111 (Nov. 22, 1994) (*800 MHz Further Notice*).

[118] *See* Implementation of Sections 3(n) and 332 of the Communications Act-- Regulatory Treatment of Mobile Services, Second Report and Order, 9 FCC Rcd 1411 (1994) (*CMRS Second Report & Order*); *CMRS Third Report & Order*, 9 FCC Rcd 7988 (1994).

[119] *Id.*

[120] *CMRS Third Report & Order* at ¶ 119. The Commission noted that some licensees had been granted authorizations to construct facilities outside of the DFAs, so they could link facilities in different markets. With (continued....)

completed its auction of 900 MHz SMR licenses and announced the winning bidders to use 900 MHz SMR in major MTAs.[121]

46. In the Balanced Budget Act proceeding, the Commission amended its rules to permit CMRS use of PLMRS frequencies in the 800 MHz land mobile band and allowed PLMRS licensees to transfer their licenses to CMRS entities.[122] In the *BBA R&O and FNPRM*, the Commission asked comment on whether, in the interest of regulatory symmetry, it should extend the same rules to 900 MHz band land mobile spectrum.[123] In the *NPRM* initiating this proceeding we sought comment on this issue in light of Nextel's proposal to accommodate 800 MHz incumbents in the 900 MHz band.[124]

D. 1.9 GHz Band

47. The Commission identified a large number of potential bands to support the types of innovative mobile services that it has broadly described as AWS in the January 2001 *Notice of Proposed Rulemaking and Order*,[125] and in the August 2001 *Memorandum Opinion and Order and Further Notice of Proposed Rule Making* in the ET Docket No. 00-258 proceeding.[126] Collectively, in the *Notice* and the *Further Notice*, the Commission sought comment on the suitability for use by AWS of frequency bands that included the 1910-1930 MHz band (designated for UPCS), the 1990-2025 MHz band (allocated for Mobile-Satellite Service (MSS)) and other bands. Subsequent decisions have narrowed the spectrum bands under consideration. In the September 2001 *First Report and Order and Memorandum Opinion and Order*, the Commission modified the existing allocation in the 2500-2690 MHz band to provide additional flexibility, but did not reallocate the band to AWS.[127] In the November 2002 *Second Report*

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respect to those unprotected sites (i.e., "secondary sites"), the Commission stated that those that were licensed on or before August 9, 1994, would be entitled to primary site protection. *Id.* The Commission also eliminated loading requirements for future MTA licensees, but retained them for incumbent 900 MHz SMR licensees that do not obtain MTA licenses. *Id.* at ¶ 194.

[121] In FCC Auction No. 7, the Commission auctioned 1,019 900 MHz SMR licenses in 51 MTAs. The FCC granted most of the licenses on August 12, 1996. *See Public Notice*, "FCC Announces Grant of 900 MHz Specialized Mobile Radio MTA Licenses," 12 FCC Rcd 13055 (1996).

[122] *See* Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequenci... Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz; Petition for Rule Making of the American Mobile Telecommunications Association, Report and Order and Further Notice of Proposed Rule Making, WT Docket N... 99-87, RM-9332, RM-9405, RM-9705, 15 FCC Rcd 22709, 22760-22761 (1999) (*BBA R&O and FNPRM*).

[123] *Id.* at 22773-22774.

[124] *NPRM*, 17 FCC Rcd at 4918 ¶ 86.

[125] Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, ET Docket No. 00-258, *Notice of Proposed Rulemaking and Order*, 16 FCC Rcd 596 (2001) (*AWS Notice*).

[126] Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, ET Docket No. 00-258, ET Docket No. 95-18, and IB Docket No. 99-81, *Memorandum Opinion and Order and Further Notice of Proposed Rule Making*, 16 FCC Rcd 16043 (2001) (*AWS Further Notice*).

[127] Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation (continued....)

and Order, the Commission allocated ninety megahertz of spectrum for AWS, consisting of forty-five megahertz of Federal Government-use spectrum in the 1710-1755 MHz band and forty-five megahertz in the 2110-2155 MHz band.[128]

48. Most recently, in its February 2003 *Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order*, the Commission considered use of spectrum in the 1910-1930 MHz band, as well as spectrum allocated to the 2 GHz MSS service in the 1990-2025 MHz and 2165-2200 MHz bands.[129] In the *Third R&O*, the Commission reallocated the 1990-2000 MHz, 2020-2025 MHz, and 2165-2180 MHz bands for Fixed and Mobile services.[130] In the *AWS Third NPRM*, the Commission identified a portion of the UPCS band at 1910-1920 MHz band as spectrum that could be made available for AWS or other purposes and sought comment with regard to using it for paired or unpaired operations—including entirely new AWS applications, expansion of existing Broadband PCS operations to support new and innovative mobile services, and as relocation spectrum for existing services. In a separate proceeding, ET Docket No. 95-18, the Commission had established the procedures by which 2 GHz MSS licensees would relocate BAS and FS licensees from the 1990-2025 MHz and 2165-2200 MHz bands, respectively. In light of the reallocation of a portion of this spectrum to support new fixed and mobile services, we issued a *Third Report and Order* in ET Docket No. 95-18 revising these relocation procedures to account for the new entrants into the band.[131]

49. Although the decisions we have made in the larger AWS and related proceedings directly affect the decisions we make today, the instant action focuses exclusively on allocations we make in the 1910-1915 MHz and 1990-1995 MHz bands. Accordingly, we address each of those bands individually, and then address the merits of creating a paired allocation consisting of the two bands.

1. 1910-1915 MHz Band

50. The 1910-1915 MHz band is a subset of a larger twenty megahertz band at 1910-1930 MHz that is allocated to the fixed and mobile services on a primary basis,[132] and is designated for use by UPCS

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Wireless Systems, ET Docket No. 00-258, *First Report and Order and Memorandum Opinion and Order*, 16 FCC Rcd 17222 (2001) (*AWS First R&O and MO&O*).

[128] Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, ET Docket No. 00-258, *Second Report and Order*, 17 FCC Rcd 23193 (2002) (*AWS Second R&O*).

[129] Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, IB Docket No. 99-81, *Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order*, 18 FCC Rcd 2223 (2003) (*AWS Third R&O, Third NPRM, and Second MO&O*).

[130] *Id.* at 2238 ¶ 28. We note that there are pending petitions for reconsideration that request changes to decisions made in the *AWS Third R&O*. The thirty megahertz was reallocated as follows: fourteen megahertz of spectrum that was held in "reserve" from the 2 GHz MSS licensees, and sixteen megahertz of spectrum that was "abandoned" as a result of 2GHz MSS licensees not meeting initial milestones. *Id.* at 2239 ¶ 32.

[131] *See* Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for use by the Mobile Satellite Service, ET Docket No. 95-18, *Third Report and Order and Third Memorandum Opinion and Order*, 18 FCC Rcd 23638 (2003) (*MSS Third R&O*).

[132] *See* 47 C.F.R. § 2.106.

devices.[133] Under the current rules, the 1910-1920 MHz portion of the band may be used for asynchronous (generally data) UPCS devices and the 1920-1930 MHz portion may be used for isochronous (generally voice) UPCS devices.[134]

51. Before the 1910-1930 MHz band was made available for UPCS applications, this band was used by fixed point-to-point microwave links. To facilitate the introduction of UPCS systems, the Commission established policies in the *Emerging Technologies* proceeding for the relocation of incumbent microwave systems from this band and designated a single entity, UTAM, to coordinate and manage the transition.[135] Unlike Broadband PCS, the record for UPCS deployment has been mixed. Currently, the most widespread application of the 1920-1930 MHz UPCS band is for wireless PBX systems.[136] A search of our equipment authorization database reveals no UPCS equipment authorized for the 1910-1920 MHz band.

52. In the *AWS Third NPRM*, we revisited the issue of redesignating all or a portion of the 1910-1930 MHz band for fixed and mobile services with the intent of promoting AWS use, pairing this band with spectrum in the 1990-2000 MHz band, and establishing reimbursement procedures for UTAM's relocation of incumbent microwave links in the UPCS band. As an initial matter, we decided to retain the 1920-1930 MHz band for isochronous UPCS use, given the existing voice applications that have been deployed in that band segment.[137] In the *AWS Third NPRM*, we also sought comment on reallocation options for the 1910-1920 MHz band. Specifically, we noted that asynchronous UPCS applications had not been developed since the service was authorized in 1994, and concluded the public interest would not be served if the ten megahertz of spectrum designated for asynchronous use in the 1910-1920 MHz band remained fallow when there were many applications that could put it to good use.[138]

53. In conjunction with its proposal to redesignate as much as ten megahertz in the 1910-1920 MHz band, the Commission recognized that new licensees in the band would reap the benefits of UTAM's band clearing efforts and concluded that UTAM should be adequately reimbursed for its efforts. Therefore, we sought comment on proposals for reimbursing UTAM. In particular, we proposed that

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[133] *See* 47 C.F.R. Part 15 – Radio Frequency Devices. Subpart D of Part 15 is titled "Unlicensed Personal Communications Service Devices."

[134] Asynchronous devices are defined as those "that transmit RF energy at irregular time intervals, as typified by local area network data systems," and isochronous devices are defined as those "that transmit at a regular interval, typified by time-division voice systems." *See* 47 C.F.R. § 15.303(a)-(d). To minimize the potential of systems in each band interfering with other systems operating in the same band, the Commission adopted rules requiring UPCS devices to monitor the spectrum prior to transmitting. Specific requirements for the operation of asynchronous devices in the 1910-1920 MHz band are codified at 47 C.F.R. § 15.321 and specific requirements for the operation of isochronous devices in the 1920-1930 MHz band are codified at 47 C.F.R. § 15.323.

[135] *See* Amendment of the Commission's Rules to Establish New Personal Communications Services, GEN Docket No. 90-314, *Fourth Memorandum Opinion and Order*, 10 FCC Rcd 7955 (1995). UTAM is the Commission's frequency coordinator for UPCS devices in the 1910-1930 MHz band. The UPCS band relocation policies are codified at 47 C.F.R. §§ 101.69-101.81.

[136] *AWS Third NPRM*, 18 FCC Rcd 2223 ¶ 40.

[137] *Id.* at ¶ 46.

[138] In 1994, the Commission anticipated that the 1910-1920 MHz band would be used for data applications such as high-speed, high-capacity LANs. *See* Amendment of the Commission's Rules to Establish New Personal Communications Services, GEN Docket No. 90-314, *Second Report and Order*, 8 FCC Rcd 7700 (1993).

UTAM be entitled to a percentage of the total reimbursement expenses incurred for the 1910-1930 MHz band as of the effective date of any final rules adopted in the AWS proceeding.[139]

54. We also note that there are several outstanding petitions that relate to use of the 1910-1915 MHz band segment. There are four petitions for waiver filed by Lucent, UTStarcom & Drew University, Ascom, and Alaska Power;[140] and two petitions for rulemaking filed by WINForum[141] and UTStarcom,[142] most of which request various unlicensed uses of the band. In the *AWS Further Notice*, the Commission sought comment on whether a portion of, or the entire, 1910-1930 MHz band should be redesignated for AWS or as relocation spectrum for incumbents in other frequency bands that are displaced by new AWS licensees.[143]

2. 1990-1995 MHz Band

55. The 1990-2110 MHz band (2 GHz BAS band) is currently used extensively by the BAS for mobile TV pickup (TVPU) operations, including electronic newsgathering (ENG) operations to cover events of interest.[144] The original 2 GHz BAS channel plan divided the band into seven channels, each

[139] For example, the redesignation of five megahertz of the twenty megahertz band would entitle UTAM to twenty-five percent of its total.

[140] In its petition for waiver, Lucent requests that it be allowed to use the 1910-1920 MHz band for its Definity PBX voice system within the confines of Cook County, Illinois. Also, UTStarcom & Drew University request permission to use the 1910-1920 MHz band to install the UTStarcom Personal Access System (PAS) on the campus of Drew University in Madison, New Jersey, in order to provide wireless telephone service to the students and staff, as an extension of the university's wired telephone system. In addition, Ascom requests that it be allowed to use the 1910-1920 MHz band for its Freeset DCT 1900 PBX voice system within the confines of Cook County, Illinois; New York City; and San Francisco County, California, because several of its customers, which are boards of trade or stock exchange entities, need high-capacity indoor wireless communications. Finally, Alaska Power requests a waiver of Part 15 asynchronous spectrum etiquette to operate a community wireless voice system over the 1910-1920 MHz (data) band, in order to serve small rural areas in Alaska that are currently unserved or underserved by wireless service providers.

[141] In its petition for rulemaking, WINForum asks the Commission to allow isochronous UPCS devices to use the 1910-1920 MHz band and to phase out asynchronous use in this band, thereby providing twenty megahertz of spectrum (1910-1930 MHz) for isochronous devices, and also to modify certain technical requirements for UPCS devices in Part 15.

[142] In its rulemaking petition, UTStarcom requests that the 1910-1920 MHz band be made available for licensing via competitive bidding to permit the establishment of community wireless network service, using the UTStarcom PAS which is based on Japan's RCR-28 Personal Handy Phone System (PHS) standard.

[143] *AWS Further Notice*, 16 FCC Rcd 16043 ¶ 9.

[144] A TVPU station is a land mobile station used for the transmission of TV program material and related communications from scenes of events back to the TV station or studio. *See* 47 C.F.R. § 74.601(a) (listing classes of TV broadcast auxiliary stations). The band is also used by fixed BAS operations such as studio-transmitter link (STL) stations, TV relay stations, and TV translator relay stations, but the majority of those operations are in higher frequency bands allocated to the BAS. *See* 47 C.F.R. §74.601(b). *See generally* 47 C.F.R. §74.600 ("Eligibility for license"). In addition, BAS spectrum in the 2 GHz band is authorized for use by the Cable Television Relay Service (CARS) and the Local Television Transmission Service (LTTS). *See* 47 C.F.R. §§ 74.602, 78.18(a)(6) and 101.801. We will refer to these services collectively as "BAS," and all decisions apply to CARS and LTTS operations in the band, as well as to BAS.

consisting of between 16.5 and 18 megahertz.[145] In the *MSS Second R&O*, the Commission reallocated the 1990-2025 MHz segment to the MSS and established a relocation plan for incumbent BAS.[146] The Commission adopted a two-phase relocation plan with a cutover schedule based on market size in which the BAS would eventually have access to seven 12 megahertz channels in the 2025-2110 MHz band at the end of the transition.[147] The Commission also identified four broad categories of BAS markets—"LA" (Los Angeles television market), "Metro" (remaining top 30 television markets), "Light" (television markets 31-100), and "Rural" (television markets 101 and above).[148] The Commission specified different relocation schedules for BAS facilities based on the size of the market.[149] For example, BAS incumbents in markets 1-30 were to be relocated on an earlier schedule than incumbents in markets 31-100.

56. In the *MSS Third R&O*, the Commission modified the plan that 2 GHz MSS licensees were to follow when relocating incumbent BAS licensees to the 1990-2025 MHz band.[150] The modified plan provides for the relocation of BAS licensees to the 2025-2110 MHz band in a single step, retains the distinction of BAS licensees by market size, and requires the relocation of those licensees within the time periods specified for their respective market categories.[151] The Commission also noted that, subsequent to its establishment of the BAS relocation plan, it had reallocated fifteen megahertz of spectrum in the 1990-2025 MHz band for new AWS entrants.[152] The Commission concluded that it was necessary to give these new AWS entrants a realistic opportunity to seek early use of the band in exchange for the relocation of incumbent users, while minimizing the disruption to BAS incumbents to the extent possible.[153] The

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[145] The original 2 GHz BAS channel plan, which is still in use, is as follows: Channel 1 (1990-2008 MHz), Channel 2 (2008-2025 MHz), Channel 3 (2025-2042 MHz), Channel 4 (2042-2059 MHz), Channel 5 (2059-2076 MHz), Channel 6 (2076-2093 MHz), and Channel 7 (2093-2110 MHz).

[146] *See* Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for use by the Mobile-Satellite Service, ET Docket No. 95-18, *Second Report and Order and Second Memorandum Opinion and Order*, 15 FCC Rcd 12315 (2000) (*MSS Second R&O*).

[147] The Phase I channel plan—an interim channel plan using 102 megahertz of spectrum at 2008-2110 MHz during the transition—consisted of seven channels (six 14.5-megahertz wide channels and one 15-megahertz wide channel). The Phase II channel plan consisted of seven channels (six 12.1-megahertz wide channels and one 12.4-megahertz wide channel) within the final 85 megahertz of spectrum at 2025-2110 MHz.

[148] *MSS Second R&O*, 15 FCC Rcd at 12323 ¶ 19.

[149] *Id.* at 12326-27 ¶¶ 29-32.

[150] *MSS Third R&O*, 18 FCC Rcd 23638. In the *MSS Third R&O*, the Commission also modified the plan for relocating incumbent FS microwave licensees in the 2180-2200 MHz band to specify appropriate interference standards and relocation guidelines that new fixed and mobile licensees should use when entering the band. Any 2 GHz MSS system that can share spectrum with BAS and/or FS incumbents is exempt from relocation obligations in the band it can share. *Id.* at 23669-70 ¶¶ 62-63, 23671 ¶ 68.

[151] The new BAS channel plan consists of seven twelve-megahertz channels and two 500-kilohertz data return link (DRL) channels. *Id.* at 23666 ¶ 55.

[152] Specifically, the fifteen megahertz of spectrum was reallocated from MSS in the 1990-2025 MHz band to support new fixed and mobile services—ten megahertz occupy the lower end (1990-2000 MHz) of the band and five megahertz are situated at the upper end (2020-2025 MHz). *See AWS Third R&O, Third NPRM, and Second MO&O*, 18 FCC Rcd 2223 ¶ 15.

[153] *MSS Third R&O*, 18 FCC Rcd at 23653-61 ¶¶ 29-44. The Commission noted that, although some time will be required to establish service rules and license new fixed and mobile entrants before they can secure entry into the band, the entry of these new AWS licensees may occur relatively quickly. Thus, the Commission expected (continued....)

Commission found that given the need to provide for rapid introduction of AWS in the 2 GHz BAS band a two-phase relocation was no longer appropriate.[154]

57. In order to provide early access to the 1990-2025 MHz spectrum for MSS licensees while maintaining the integrity of the BAS system, the Commission set up a negotiation structure that provided for a one-year mandatory negotiation period, consistent with those procedures established in the *Emerging Technologies* proceeding.[155] Under this structure, incumbent BAS licensees in television markets 1-30 are required to negotiate in good faith with the new MSS entrant to facilitate relocation from the band.[156] Upon expiration of the mandatory negotiation period, the new MSS entrant may involuntarily relocate incumbent BAS licensees to the seven narrower channels in the 2025-2110 MHz band that make up the revised BAS channel plan.[157] Once BAS licensees in markets 1-30 and all fixed BAS stations, regardless of market size, have been relocated, MSS licensees may begin their nationwide operations in the 2000-2020 MHz band. On the date the first MSS licensee begins operations, all BAS licensees in markets 31-210 must immediately cease operations on existing channels 1 and 2 (1990-2025 MHz), and BAS operations will no longer be permitted in that spectrum. Also on this date, a one-year mandatory negotiation period will begin between MSS licensees and BAS incumbents in markets 31-210. Although MSS licensees may involuntarily relocate BAS incumbents at any time after the expiration of the one-year mandatory negotiation period, BAS incumbents in markets 31-100 must be relocated to the seven narrower channels in the 2025-2110 MHz band that make up the revised BAS channel plan within three years of the date the first MSS licensee begins operations, and BAS incumbents in markets 101-210 must be relocated within five years of this date.[158]

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the band to be used more fully and more quickly by the combination of the remaining MSS licensees and new AWS licensees than was anticipated in the *MSS Second R&O*, when the band was to be exclusively used by MSS licensees whose systems were expected to be deployed and to grow consistent with then distant milestones.

[154] The Commission determined that the initiation of the Phase I relocation and a subsequent quick transition to Phase II would undercut the principal rationale for a two-phase transition—that the potential to leave substantial amounts of spectrum unused for a long period of time would result in inefficient use of valuable 2 GHz spectrum. *See MSS Second R&O*, 15 FCC Rcd at 12327 ¶ 34 (stating that a phased approach will "assur[e] efficient use of the spectrum"). In addition, the Commission reasoned that, if Phase II of the transition was initiated during the time in which Phase I relocations are taking place, BAS operations could be on three different band plans, and some BAS licensees would face the disruption and down time associated with being twice relocated in a short period of time. *See MSS Third R&O*, 18 FCC Rcd at 23655 ¶ 33.

[155] *MSS Second R&O*, 15 FCC Rcd at 12328-31 ¶¶ 38-49. *See generally*, 47 C.F.R. § 101.73 (good faith negotiation requirement).

[156] For purposes of the relocation plan, BAS markets consist of Nielsen Designated Market Areas (DMAs) as they existed on June 27, 2000. *MSS Second R&O*, 15 FCC Rcd at 12331 ¶ 42.

[157] *MSS Second R&O*, 15 FCC Rcd at 12331 ¶ 48. *See generally*, 47 C.F.R. § 101.75. Under involuntary relocation, the new MSS entrant may, at its own expense, make necessary modifications to or replace the incumbent licensee's BAS equipment such that the BAS licensee receives comparable performance from the modifications or replaced equipment. The current mandatory negotiation periods adopted in the *MSS Third R&O* are as follows: MSS licensees and BAS incumbents in markets 1-30 and all BAS fixed stations, regardless of market size, begin a mandatory negotiation period that lasts for one year from December 8, 2003. *MSS Third R&O*, 18 FCC Rcd at 23659-60 ¶ 42. The Commission also provided for a sunset date, December 8, 2013, after which a new licensee's obligation to relocate an incumbent BAS operator in the 1990-2025 MHz band will end. At that time, BAS operations in the band (if any remain) will operate on a secondary basis. *See MSS Third R&O*, 18 FCC Rcd 23661-62 ¶¶ 45-47.

[158] *MSS Third R&O*, 18 FCC Rcd at 23657 ¶ 38.

58. Petitions for reconsideration or clarification of BAS relocation decisions made in the *MSS Third R&O* were filed by the Association for Maximum Service Television (MSTV), National Association of Broadcasters (NAB), Society of Broadcast Engineers (SBE) and Boeing Company (Boeing). The Radio-Television News Directors Association (RTNDA) filed comments in support of the petition filed by the other broadcast parties. MSTV/NAB and Boeing filed oppositions. ICO Global Communications Limited (ICO), NAB/MSTV/SBE and Boeing filed reply comments. We will address the BAS relocation issues raised in these petitions in this proceeding.[159]

3. Band Pairing

59. In the AWS *Third NPRM*, we noted that the 1910-1920 MHz band (or a portion thereof) and the 1990-2000 MHz band (or a portion thereof) were well suited to be part of a paired spectrum allocation, and tentatively concluded that it would serve the public interest to adopt a five + five megahertz or a ten + ten megahertz pairing within these bands.[160] We noted that such a pairing would allow for a number of new uses, including an expansion of systems using the adjacent Broadband PCS bands. Moreover, both Nextel and parties representing MDS licensees in the 2150-2160 MHz band have expressed interest in obtaining this paired spectrum. In both instances, these parties proposed to make use of paired spectrum in the 1910-1920 MHz and 1990-2000 MHz band to offset spectrum they would no longer use, in order to address public safety interference concerns (in the case of Nextel) or would lose because the spectrum had been reallocated as part of the AWS proceeding (in the case of MDS licensees).

60. We noted that such an allocation might allow for quicker design and deployment of new equipment because existing Broadband PCS systems operate on adjacent bands, and that because the 1910-1920 MHz band lacks incumbent UPCS users, new licensees need only address relocation as it pertains to the relocation of incumbent point-to-point microwave systems in the band. We also noted that a five + five megahertz block pairing could accommodate the design specifications of both existing high-power mobile applications (such as Broadband PCS) and systems (such as WCDMA and CDMA-2000) that have commonly been proposed for AWS deployment.[161]

V. RECORD OVERVIEW OF THE 800 MHZ PUBLIC SAFETY INTERFERENCE PROCEEDING

61. Our decisions in this *Report and Order* stem from a record that extends well beyond the typical comment/reply comment cycle. The record of over 2200 filings depicts an evolving understanding among the parties of how interference occurs in the 800 MHz band and how best to attack it at its source. Parties to the proceeding have contributed engineering, economic, legal and policy analyses, enabling us to craft a solution that is technically sound, effective, and equitable to the parties, consistent with precedent and in all respects realizable. Although we carefully reviewed all submissions in this docket, we list some of the major milestones on the road to that solution below:

- In April 2000, the Commission convened a meeting of representatives from APCO, Nextel, the CTIA, Motorola and the Public Safety Wireless Network (PSWN) to address the growing problem of interference to 800 MHz public safety systems. As an outcome of the meeting, the

[159] *See* ¶¶ 264-276 *infra*. We note that there is an additional pending petition for clarification and reconsideration of FS relocation decisions made in the *MSS Third R&O* filed jointly by the American Petroleum Institute and UTC, but we will address the FS issues raised in this petition at a later date.

[160] *AWS Third NPRM*, 18 FCC Rcd 2223 ¶ 48.

[161] *Id.* at ¶¶ 48-49.

parties published the *Best Practices Guide*, which contained technical modifications and procedures to reduce interference.[162]

- On November 21, 2001, Nextel filed a White Paper proposing reconfiguration of the 800 MHz band to abate the interference being caused to 800 MHz public safety systems.[163] The White Paper proposed moving all non-cellular SMR and B/ILT licensees to other bands.[164] The 800 MHz spectrum available to public safety would double.[165] Nextel was to pay up to $500 million of the costs incurred by public safety entities in changing channels to facilitate band reconfiguration.[166] Other 800 MHz licensees were to bear their own cost of relocation to other bands.[167] Nextel also would relinquish its 700 MHz and 900 MHz band spectrum rights.[168] In return, Nextel would receive a nationwide allotment of ten megahertz of spectrum in the 2.1 GHz band.[169]

- On December 21, 2001, the National Association of Manufacturers (NAM) and MRFAC, one of the Commission's certified frequency coordinators, made a joint filing wherein they advanced a band reconfiguration plan which they claimed could be implemented without the need to give Nextel the requested 2.1 GHz spectrum.[170]

- On March 15, 2002, the Commission issued the *NPRM* seeking comment on the two band reconfiguration proposals (Nextel and NAM/MRFAC) and on a variety of other issues, all related to abatement of interference to 800 MHz public safety systems.

- The Commission received 139 comments in response to the *NPRM* during the comment period of April 5, 2002, to May 6, 2002; and seventeen reply comments during the thirty-day reply comment period which ended on June 4, 2002.[171] In those comments, several parties advanced alternative band reconfiguration proposals. Other parties argued that technical measures short of band reconfiguration would remedy the interference problem. Some B/ILT and non-cellular SMR licensees objected to being required to relocate to other bands at their own expense.

- Although most of the reply comments were rebuttals to the comments, the Consensus Parties

[162] *See* n. 40 *supra.*

[163] *See generally* White Paper.

[164] *Id.* at 7-8.

[165] *Id.* at 25.

[166] *Id.* at 8.

[167] *Id.* at 41 n. 54.

[168] *Id.* at 28-30.

[169] *Id.* at 8.

[170] *See* Letter, dated Dec. 21, 2001, from Jerry Jasinowski, President National Association of Manufacturers and Clyde Morrow, Sr., President, MRFAC, Inc. to Michael Powell, Chairman, Federal Communications Commission (NAM/MRFAC Proposal).

[171] Two additional reply comments were filed on June 5, 2002.

filed an extensive new proposal that effectively superseded the White Paper.[172] The new proposal included a band reconfiguration plan that would not displace B/ILT and non-cellular SMR licensees from the 800 MHz band. Nextel continued its commitment to pay up to $500 million for relocation of 800 MHz public safety systems and proposed to relinquish certain of its 700 MHz, 800 MHz, and 900 MHz spectrum rights. Nextel argued that it should be "made whole" for doing so as part of a "spectrum swap" that would net it ten megahertz of spectrum rights at 1.9 GHz.

- Because the reply comments contained new matters on which other parties had not had the opportunity to comment, a public notice establishing a September 23, 2002 deadline for the submission of comments addressing the new proposal was issued.[173] We received sixty-five comments, including one late-filed comment, in response to the *September 6th Public Notice*.

- On December 24, 2002, the Consensus Parties filed a supplement to their proposal in which Nextel agreed to pay up to $850 million of the costs of relocating any system—public safety, ESMR, non-cellular SMR or B/ILT—as necessary to implement the previously submitted band reconfiguration proposal.[174] Non-cellular 800 MHz systems were to be afforded protection against ESMR and cellular telephone interference, provided the desired signal was adequate in the area in which interference was being encountered.[175] The supplement also contained a proposed band plan for use in the Canadian and Mexican border areas.[176]

- Because the revisions to the proposal were so extensive, on January 3, 2003, another pleading cycle was initiated, inviting comment on the Supplemental Comments of the Consensus Parties.[177] Sixty-four comments and thirty-nine reply comments were filed in response to the *January 3rd Public Notice*. Comments were received on February 3, 2003; reply comments on February 18, 2003, at which time the record was closed. However, as discussed below, we received an exceptionally large number of filings made pursuant to our rules allowing *ex parte* communications in a permit but disclose rulemaking proceeding such as this.[178]

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[172] *See* ITA Reply Comments filed Aug. 7, 2002 (Consensus Party Reply Comments). Although ITA filed the comments, the comments represented the views of the Consensus Parties. *Id.* at iii.

[173] *See* Wireless Telecommunications Bureau Seeks Comment on "Consensus Plan" filed in the 800 MHz Public Safety Interference Proceeding, WT Docket 02-55, *Public Notice*, 17 FCC Rcd 16755 (2002) (*September 6th Public Notice*). Following the *September 6th Public Notice*, interested parties inquired whether comments could also be filed on the other band plans or proposals advanced in reply comments. On September 17, 2002, the Bureau released a *Public Notice* clarifying that all such comments were welcomed in the interest of developing a complete record. *See* Wireless Telecommunications Bureau Clarifies Scope of Comments Sought in 800 MHz Public Safety Proceeding, WT Docket 02-55, *Public Notice*, 17 FCC Rcd 17226 (2002) (*September 17th Public Notice*).

[174] *See* Supplemental Comments of the Consensus Parties, *ex parte* filing dated Dec. 24, 2002 (Supplemental Comments of the Consensus Parties).

[175] *Id.* at 39-44.

[176] *Id.* at 35-39.

[177] *See* Wireless Telecommunications Bureau Seeks Comment on "Consensus Plan" filed in the 800 MHz Public Safety Interference Proceeding, WT Docket 02-55, *Public Notice*, 18 FCC Rcd 30 (2003) (*January 3rd Public Notice*) (comments and reply comments were due February 3, 2003, and February 18, 2003, respectively).

[178] 47 C.F.R. § 1.1200 *et. seq.*

- On April 18, 2003, the Chief of the Commission's Office of Engineering and Technology wrote to equipment manufacturers inquiring whether there were any recent developments in receiver technology that would aid in the reduction of interference to 800 MHz public safety systems.[179]

- On May 6, 2003, Motorola filed a letter reporting that it had developed an improved receiver with enhanced capability for rejecting intermodulation interference using switchable attenuators;[180] provided the receiver was presented with a sufficiently strong public safety signal.

- On May 29, 2003, a new party—the 800 MHz Users Coalition[181]—filed an *ex parte* document characterized as a "Balanced Approach" to interference abatement. The Balanced Approach was a set of specific procedures for identifying and eliminating interference to incumbent users and suggesting specific changes to the technical rules for the 806-824 MHz/851-869 MHz band to prevent future harmful interference to public safety and other licensees operating there. The 800 MHz Users Coalition claimed that the Balanced Approach would solve the interference problem completely and, therefore, that band reconfiguration was unnecessary.

- On July 29, 2003, Anne Arundel County, Maryland filed an *ex parte* letter confirming that the County reached a "channel swap" agreement with Nextel.[182] The County observes that the frequency exchange agreement will relocate the County from the "middle portion" of the interleaved spectrum to slightly lower in the 800 MHz band. While the County believes that the exchange will improve the County's spectrum access and coverage, the County states that it will still be "interleaved" and near Nextel and cellular carrier's operations. Accordingly, the County submits, the channel swap, alone, cannot sufficiently eliminate all intermodulation and out-of-band emission (OOBE) interference;[183] and a permanent interference solution will require de-interleaving the channels used for noise-limited public safety systems from those allocated for high-capacity, multi-cell cellular systems.

- On August 7, 2003, the Consensus Parties filed an *ex parte* document which contained a rebuttal to the 800 MHz Users Coalition May 29, 2003 *Ex Parte* and an analysis purporting to show that the improved Motorola receivers, discussed *supra*, would not themselves provide sufficient relief from unacceptable interference; but that they would be a valuable adjunct to

[179] *See, e.g.*, Letter, dated Apr. 18, 2003, from Edmond J. Thomas, Chief, Office of Engineering and Technology, Federal Communications Commission, to Steve Sharkey, Director, Spectrum and Standards Strategy, Motorola, Inc.

[180] *See* Letter, dated May 6, 2003, from Steve B. Sharkey, Director, Spectrum and Standards Strategy, Motorola, Inc. to Marlene H. Dortch, Secretary, Federal Communications Commission (Motorola May 6 *Ex Parte).*

[181] *See* Letter, dated May 29, 2003, from Jill Lyon, Vice President and General Counsel, UTC to Marlene H. Dortch, Secretary, Federal Communications Commission (800 MHz Users Coalition May 29, 2003 *Ex Parte).*

[182] *See* Anne Arundel *ex parte* letter dated July 29, 2003; *see also* Letter, dated May 21, 2003, from James R. Hobson, Esq., Counsel for Anne Arundel County to Marlene H. Dortch, Secretary, Federal Communications Commission (describing frequency exchange discussions between the County and Nextel) (Anne Arundel *ex parte* letter dated May 21, 2003).

[183] *See* ¶¶ 90-91 *infra.*

band reconfiguration.[184]

- On October 27, 2003, Verizon Wireless filed an economic study purporting to show that adoption of the Consensus Plan, including the allocation of ten megahertz of 1.9 GHz spectrum to Nextel, would increase the value of Nextel's spectrum rights by $7.2 billion.[185]

- On October 29, 2003, the Commission received comments from Industry Canada on the Consensus Parties' Plan. These comments addressed what Industry Canada perceived as shortcomings in the proposal for reconfiguring the 800 MHz band in the border area.[186]

- On November 3, 2003, Motorola filed an *ex parte* description of the embedded base of Motorola products in the 800 MHz band indicating which Motorola radios could be supplied with, or converted to, switchable attenuator circuitry.[187]

- On November 6, 2003, the City of Denver filed a "channel swap" agreement it had reached with Nextel. Nextel and Denver entered into this agreement because implementation of the technical fixes identified in the *Best Practices Guide* had been ineffective in completely abating interference to Denver's 800 MHz public safety system.[188]

- On November 20, 2003, Nextel filed an *ex parte* economic evaluation of the Consensus Plan, the Motorola Plan, the July 9, 2003 CTIA economic estimates and the CTIA/UTC plan.[189]

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[184] *See* Ex Parte Submission of the Consensus Parties, *ex parte* filing dated August 7, 2003 (Consensus Parties August 7 *Ex Parte*).

[185] *See* "Determination of the Fair Market Value of the Certain Portions of FCC Licensed Wireless Spectrum Proposed For Realignment by Nextel Communications, Inc. under FCC WT Docket No. 02-55 as of December 31, 2002," by Kane Reece Associates, Inc., attached to Letter, dated Oct. 27, 2003, from John T. Scott, III, Esq., Vice President and Deputy General Counsel, Verizon Wireless to Marlene H. Dortch, Secretary, Federal Communications Commission (Kane Reece Study). *See also* Letter, dated May 27, 2004, from John T. Scott, III, Vice President and Deputy General Counsel, to Marlene H. Dortch, Secretary, Federal Communications Commission (arguing that contiguous spectrum is more valuable than non-contiguous spectrum).

[186] The Industry Canada comments were dated March 26, 2003. Industry Canada did not include an identifying docket number when it filed the document with the Commission's Secretary. Consequently, the filing was not associated with the docket file until October 29, 2003, when a Wireless Telecommunications Bureau attorney discovered a copy of the comments and directed that they be entered them into the record as an *ex parte* filing. *See* 47 C.F.R. § 1.1200 *et. seq.*

[187] *See* Letter, dated November 3, 2003, from Steve B. Sharkey, Director, Spectrum and Standards Strategy, Motorola, Inc. and Dr. Robert Kubik, Manager, Spectrum and Standards Policy, Motorola, Inc. to Edmond Thomas, Chief, Office of Engineering and Technology, Federal Communications Commission and John Muleta, Esq., Chief, Wireless Telecommunications Bureau, Federal Communications Commission (Motorola November 3 *Ex Parte).*

[188] *See* Letter, dated November 3, 2003, from Alan S. Tilles, Esq., Counsel to the City and County of Denver to John Muleta, Esq., Chief, Wireless Telecommunications Bureau, Federal Communications Commission. Because this filing contains a Statement of Work the parties refer to it as the Denver SOW.

[189] *See* Letter, dated November 20, 2003, from Lawrence R. Krevor, Esq., Vice President-Government Affairs, Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission. Attached to one letter is an economic study authored by Dr. Gregory L. Rosston (Nextel Rosston *Ex Parte).* Attached to the second letter is "The Consensus Plan: Promoting the Public Interest," by Sun Fire Group, LLC, in which the value of the 1.9 GHz (continued....)

- On December 24, 2003, the City and County of San Diego filed a "channel swap" agreement that the City and County reached with Nextel due to their belief that the Consensus Plan, as designed, in and of itself, will not work in San Diego.[190] The City and County agreement incorporates certain aspects of the Consensus Plan (*i.e.* Appendix F, as amended August 2003) and some revisions to the Balanced Approach Plan[191] in order to adequately address the City and County's concerns for reliable communications, mutual aid NSPAC channels, and interoperability.

- On February 10, 2004, Verizon Wireless filed a study by Kane Reece Associates contesting the spectrum evaluation contained in the Nextel Sunfire *ex parte*.[192]

- On February 19, 2004, Verizon Wireless filed a document entitled "Determination of the Fair Market Value of the Spectrum Proposed for Realignment by Nextel Communications, Inc." which reiterated their claim that adoption of the Consensus Plan, including the allocation of ten megahertz of 1.9 GHz spectrum rights to Nextel, would increase the value of Nextel's spectrum rights by $7.2 billion.[193] In addition, Verizon filed the following documents:

    - Pro Forma Analysis of Cingular/AT&T Wireless Transaction as of February 17, 2004, by Kane Reece;

    - Legg Mason, Spectrum Swap Looks Headed Nextel's Way, But With Wrinkle, January 22, 2004; and

    - Goldman Sachs, NXTL (U/C) & FCC moving towards negotiated agreement on spectrum issues, October 5, 2003.

- On March 18, 2004, Nextel filed an analysis of the Kane Reece Spectrum Valuation challenging that valuation's conclusion that adoption of the Consensus Plan would result in a windfall to Nextel.[194]

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spectrum was inferred from the prices of recent secondary market transactions, asserted to be comparable spectrum licenses (Sun Fire Study).

[190] *See ex parte* comments, dated December 24, 2003, from City and County of San Diego (San Diego *Ex Parte*). The "San Diego Solution" described negotiations between the County, City, Nextel, APCO, UTC and representatives of the 800 MHz Users' Coalition.

[191] *See id.* at Attachment 1 (Balanced Approach – San Diego City and County Revision).

[192] *See* Kane Reece Analysis of Sunfire Study, dated February 9, 2004, attached to Letter, dated February 10, 2004, from John T. Scott III, Esq., Vice President and Deputy General Counsel – Regulatory Law, Verizon Wireless to Marlene Dortsch, Secretary, Federal Communications Commission (Kane Reece Study II).

[193] *See* Determination of the Fair Market Value of the Spectrum Proposed for Realignment by Nextel Communications, Inc., filed February 19, 2004.

[194] *See* Economic Analysis of the Kane Reece Spectrum Valuation by Dr. Gregory R. Rosston, dated March 18, 2004, attached to Letter, dated February 10, 2004, from Lawrence R. Krevor, Esq., Vice President-Government Affairs, Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission. *See also* Analysis of the Kane Reece Spectrum Valuation by American Appraisal Associates, dated May 6, 2004 attached to Letter, dated May 6, 2004, from Lawrence R. Krevor, Esq., Vice President-Government Affairs, Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission. *But see* Letter, dated April 8, 2004, from John T. Scott, III, Verizon Vice President and Deputy General Counsel to Marlene H. Dortch, Secretary, Federal (continued....)

- On March 31, 2004, Verizon Wireless filed a petition requesting that the Commission auction spectrum rights in the 1910-1915 MHz and 1990-1995 MHz bands.[195] On April 8, 2004, Verizon Wireless informed the Wireless Telecommunications Bureau that it is prepared to submit an initial opening round bid of $5 billion in such an auction.[196]

- On April 14, 2004, Verizon Wireless filed a letter indicating that Nextel had originally sought replacement spectrum in the 2.1 GHz band, instead of 1.9 GHz.[197]

- On April 22, 2004, Nextel filed a letter stating that it could not accept spectrum rights in the 2.1 GHz band in exchange for its commitment to fund the reconfiguration of the 800 MHz band.[198]

- On April 29, 2004, CTIA filed a proposal in which Nextel would establish a Public Safety Trust Fund with a minimum deposit of $3 billion. An independent trustee would administer this fund, which would fund band reconfiguration.[199] In exchange, CTIA proposes the Commission grant Nextel spectrum rights to ten megahertz in the 2.1 GHz band.

- On May 3, 2004, Nextel submitted a plan for relocating BAS licensees out of the 1990-2025 MHz band. Under this plan, Nextel would commit to funding the entire cost of relocating all BAS incumbents nationwide from the 1990-2025 MHz band, subject to Nextel's being assigned replacement spectrum in the 1910-1915/1990-1995 MHz band and receiving full credit for its contributions to the BAS relocation costs, which MSTV, NAB and Nextel estimate at $512 million.[200]

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Communications Commission (critique of Rosston Study); Letter, dated May 24 from Kane Reece Associates, Inc., to Donald C. Brittingham, Verizon, Director of Wireless Spectrum Policy attached to Letter, dated May 27, 2004, from John T. Scott, III, Verizon Vice President and Deputy General Counsel to Marlene H. Dortch, Secretary, Federal Communications Commission (critique of American Appraisal Associates analysis of Kane Reece Spectrum Valuation).

[195] Petition of Verizon Wireless for Expedited Action to License 1.9 GHz Spectrum for Personal Communications Services through Competitive Bidding, filed March 31, 2004.

[196] *See* Letter, dated April 8, 2004, from Margaret P. Feldman, Vice President Business Development, Verizon Wireless to John B. Muleta, Chief, Wireless Telecommunications Bureau, Federal Communications Commission.

[197] *See* Letter, dated April, 14, 2004, from R. Michael Senkowski, to Marlene H. Dortch, Secretary, Federal Communications Commission.

[198] *See* Letter, dated April 22, 2004, from Robert S. Foosaner, Senior Vice President and Chief Regulatory Officer, Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission. *See also* Letter, dated May 11, 2004, from Timothy M. Donahue, Chief Executive Officer and President, Nextel to Michael K. Powell, Chairman, Federal Communications Commission; Letter, dated May 14, 2004, from Robert S. Foosaner, Senior Vice President and Chief Regulatory Officer, Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission.

[199] *See* Letter, dated April 29, 2004, from Steve Largent, President and Chief Executive Officer, CTIA to Kevin J. Martin, Commissioner, Federal Communications Commission (CTIA April 29 *Ex Parte*).

[200] *See* Joint Proposed BAS Relocation Plan, dated May 3, 2004, from David Donovan, MSTV, Edward O. Fritts, President and CEO, NAB, and Roberts S. Foosaner, Senior Vice President and Chief Regulation Officer, Nextel. (MSTV/NAB/Nextel May 3, 2004 *Ex Parte*). *See also* Letter dated May 12, 2004, from Jack Goodman, (continued....)

- On May 7, 2004, CTIA filed an analysis of the band clearing costs, propagation characteristics, equipment costs and valuation of the 2.1 GHz band.[201]

- On June 4, 2004, Nextel offered to surrender its rights to an additional two megahertz of 800 MHz spectrum as well as its rights to 700 MHz Guard Band Spectrum in forty markets, thus estimating that Nextel's spectrum and financial contributions would total $5.1 billion.[202]

- On June 16, 2004, Nextel modified its June 4 submission to include a sliding scale of interference protection in the 816-817 MHz/861-862 MHz band segment.[203]

- On June 30, 2004, Verizon Wireless submitted a legal analysis claiming that awarding Nextel spectrum rights in the 1.9 GHZ band violated the Anti Deficiency Act (ADA)[204] and the Miscellaneous Receipts Act (MRA).[205]

- On July 1, 2004, Verizon Wireless supplemented its June 30, 2004 legal analysis to further contend that the Nextel/BAS relocation plan violates the ADA and MRA.[206]

(Continued from previous page)
Senior Vice President and Council, NAB to Marlene H. Dortch, Secretary, Federal Communications Commission (expressing support for Nextel/BAS relocation plan).

[201] *See* Letter, dated April 29, 2004, from Diane J. Cornell, Vice President, Regulatory Policy, CTIA to Marlene H. Dortch, Secretary, Federal Communications Commission. *See also* Letter, dated May 13, 2004, from Diane J. Cornell, Vice President, Regulatory Policy, CTIA to Marlene H. Dortch, Secretary, Federal Communications Commission (arguing that CTIA compromise plan is superior than Consensus Plan). *See also* Letter, dated May 27, 2004, from Helgi Walker, Council to Verizon Wireless to Marlene H. Dortch, Secretary, Federal Communications Commission (concurring with CTIA proposal). *See also* Letter dated May 19, 2004 from Steve Largent, President and Chief Executive Office, CTIA, to Michael K. Powell, Chairman, Federal Communications Commission (responding to Nextel May 14 letter).

[202] *See* Letter, dated June 4, 2004, from Robert S. Foosaner, Senior Vice President and Chief Regulatory Officer, Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission (Nextel June 4, 2004 *Ex Parte*); Letter, dated June 21, 2004, from Regina Keeney, Counsel to Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission (revising estimate to $5.4 billion to reflect increased filter costs) (Nextel June 24, 2004 *Ex Parte*). *See generally*, Letter dated June 14, 2004, from Vincent R. Stiles, APCO President, to Michael Powell, Chairman, Federal Communications Commission (supporting 4.5 MHz proposal). *But see* Letter, dated June 9, 2004, R. Michael Senkowski, Counsel to Verizon Wireless to Marlene H. Dortch, Secretary, Federal Communications Commission; Letter, dated June 16, 2004, R. Michael Senkowski, to Marlene H. Dortch, Secretary, Federal Communications Commission (criticizing 4.5 MHz proposal) (Nextel June 9, 2004 *Ex Parte*).

[203] *See* Letter, dated June 16, 2004, from Lawrence R. Krevor, Vice President-Government Affairs, Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission. *See also* Letter, dated June 9, 2004, from Robert S. Foosaner, Senior Vice President and Chief Regulatory Officer, to Marlene H. Dortch, Secretary, Federal Communications Commission (describing technical details of 4.5 MHz proposal).

[204] 31 U.S.C. § 1341.

[205] 31 U.S.C. § 3302. *See* Letter, dated June 28, 2004, from William Barr, Verizon to Michael Powell, Chairman, Federal Communications Commission; Letter dated June 30, 2004, from Walter Dellinger to Michael Powell, Chairman, Federal Communications Commission. *See also* Letter dated April 8, 2003, from Helgi C. Walker, Counsel to Verizon Wireless to Marlene H. Dortch, Secretary, Federal Communications Commission.

[206] *See* Letter, dated July 1, 2004, from Helgi Walker, Counsel to Verizon Wireless to Michael K. Powell, Chairman, Federal Communications Commission.

- On July 1, 2004, Nextel submitted a legal analysis claiming that awarding Nextel spectrum rights in the 1.9 GHz band would not violate the ADA and MRA.[207]

- On July 27, 2004, Nextel filed confirmations of its earlier record estimates of the costs it will incur installing filters in order to limit emissions into the lower-adjacent band and its retuning costs in order to complete band reconfiguration. The filing also discussed the eighteen month milestone.[208]

VI. DISCUSSION

A. The Commission's Spectrum Management and Legal Authority

62. Section I of the Act charges the Commission with "promoting safety of life and property through the use of wire and radio communication."[209] In the face of this mandate, we cannot fail to take effective action to address the untenable situation that has developed in the 800 MHz band—the fact that the safety of life and property is placed at risk daily when 800 MHz public safety radios fail due to interference from ESMR and cellular systems, thereby severing the communications link that public safety officers rely upon to summon help, coordinate actions with their fellow officers, request emergency medical services, and respond to incidents that threaten our Homeland Security. If unacceptable interference in the 800 MHz band were to remain unabated, this Commission would fail to achieve one of its prime directives: to manage the spectrum in a manner that promotes safety of life and property.

63. We conclude that in order to abate the interference in the 800 MHz band, the Commission has the authority to modify licenses so as to locate licensees in other portions of the spectrum. Indeed, in the Auction Reform Act of 2002, Congress found that one "option" available to the Commission to resolve the interference problem that exists in the 800 MHz band would involve the use of spectrum outside of the 800 MHz band.[210] Clearly Congress indicated its approval of our consideration of allocating spectrum in the Upper 700 MHz band, as well as other options, to resolve the interference problems in the 800 MHz band. As we discuss *infra*, over the course of this proceeding, we have considered several bands, including the Upper 700 MHz band, to facilitate the restructuring of the band. While the Upper 700 MHz band has not proven to be a viable option because of the inherent fluidity of the transition to DTV, we have found that the 1.9 GHz band is an option, and, in fact, the most viable and best option, to facilitate the restructuring of the 800 MHz band as contemplated by Congress.

64. We find we have legal authority under the Communications Act to implement the spectrum

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[207] *See* Letter, dated July 1, 2004, from Regina M. Keeney, Counsel to Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission, accompanied by Letter, dated July 1, 2004, from Richard Thornburgh to Michael Powell, Chairman, Federal Communications Commission.

[208] *See* Letter, dated July 27, 2004, from Regina M. Keeney, Counsel to Nextel to Marlene H. Dortch, Secretary, Federal Communications Commission.

[209] 47 U.S.C § 151. *See also* 4.9 GHz Band Transferred from Federal Government Use, WT Docket No. 00-32, *Memorandum Opinion and Order and Third Report and Order*, 18 FCC Rcd 9152 (2003) (allocating spectrum for public safety in furtherance of Commission's Section 1 obligation to promote safety of life and property); E911 Accuracy Standards Imposed on TIER III Carriers for Locating Wireless Subscribers Under Rule Section 20.18(H), WT Docket No. 02-377, Order, FCC 03-297, (2003) (denying a petition for forbearance from certain E911 requirements because of the strong connection between such requirements and the Commission's obligation to promote safety of life).

[210] The Auction Reform Act of 2002. *See* n. 109 *supra*

management plan set forth in this *Report and Order* including the authority to (i) modify Nextel's licenses to permit operations in the 1.9 GHz band and (ii) include relocation and potential "anti-windfall" payments from Nextel within the rebanding plan. Pursuant to Sections 316, 303, 301, and 4(i) of the Act,[211] we have broad authority to effectuate a spectrum management plan that includes license modifications to serve the public interest. Further, the courts have recognized and deferred to our policy responsibilities in assessing the public interest and exercising this authority.[212]

65. The Commission has the authority to modify licenses pursuant to Section 316 to solve the interference problems in the 800 MHz band. Specifically, Section 316(a)(1), provides that "[a]ny station license . . . may be modified by the Commission . . . if in the judgment of the Commission such action will promote the public interest, convenience and necessity."[213] As the D.C. Circuit recently explained in *California Metro Mobile Communications v. FCC* (*CMMC*), "Section 316 grants the Commission broad power to modify licenses; the Commission need only find that the proposed modification serves the public interest, convenience and necessity."[214] The D.C. Circuit has held that such modifications do not have to be consensual[215], that license holders may be moved on a service-wide basis, without license-by-license consideration,[216] and that eliminating harmful interference is an accepted basis for ordering license modifications.[217]

66. Furthermore, the D.C. Circuit has upheld the Commission's authority to allocate the relocation costs associated with license modifications among the affected licensees. In *Teledesic, LLC v. FCC*, 275 F.3d 75, n. 212 *supra*, the court upheld the Commission's rules requiring satellite owners to pay

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[211] 47 U.S.C. §§ 316, 303, 301, and 154(i).

[212] *See, e.g., Teledesic LLC v. Federal Communications Commission*, 275 F.3d 75, 84 (D.C. Cir. 2001) ("[W]hen it is fostering innovative methods of exploiting the spectrum, the Commission 'functions as a policymaker and, inevitably, a seer—roles in which it will be accorded the greatest deference by a reviewing court.'") (citation omitted).

[213] 47 U.S.C. § 316 (a)(1).

[214] *California Metro Mobile Communications v. FCC,* 365 F.3d 38, 45 (D.C. Cir.2004) (*CMCC*). In *CMMC,* the court upheld the authority of the Commission to modify CMMC's license by deleting a frequency which had the potential to cause interference to an existing licensee. The Commission undertook the action to correct an error of a frequency coordinator, who recommended that the Commission grant CMMC a license after the coordinator had incorrectly determined that the requested frequencies would not cause interference to any existing licensee. Among other things, the court found that section 316 is not unambiguous and therefore deferred to the Commission's interpretation that "section 316 contains no limitation on the time frame within which it may act to modify a license and that its action under the section is not subject to the limitations on revocation, modification or reconsideration imposed by [s]ection 405." 365 F.3d at 45 (*citations omitted*). The court also found that the Commission's modification served the public interest, even though the modification was based on potential rather than actual interference, and it caused a minor disruption in CMMC's operations. *Id.* at 46.

[215] *Peoples Broadcasting Co. v. United States*, 209 F.2d 286, 288 (D.C. Cir. 1953). In *People's Broadcasting*, the court upheld the Commission's authority to modify a television station license without an application by the licensee for such a modification, noting that "if modification of licenses were entirely dependent upon the wishes of existing licensees, a large part of the regulatory power of the Commission would be nullified."

[216] *Community Television, Inc. v. FCC*, 216 F.3d 1133, 1140 (D.C. Cir. 2000). In *Community Television*, the court upheld the FCC's rules establishing procedures and timetable under which television broadcasting would migrate from analog to digital technology.

[217] *See CMCC,* 365 F.3d 38, n. 214 *supra.*

the relocation costs of terrestrial users that they chose to displace as part of a rebanding of shared spectrum. The court noted that the approach to allocating relocation costs was similar to approaches that the Commission had adopted in both the Emerging Technologies and 2 GHz MSS relocation proceedings.[218]

67. The D.C. Circuit also has upheld license modifications that involve relocating existing licensees to new spectrum, outside of the auction process. Specifically, the court found that the Commission may approve spectrum swaps between existing licensees, without offering the swapped spectrum to alternative users.[219] The Commission also has moved licensees to unassigned spectrum under its modification authority. In the *MSS Order* the Commission, citing *Rainbow Broadcasting*, exercised its authority under Section 316 to assign open spectrum in the upper and lower L-bands to Motient Services (Motient).[220] The spectrum replaced spectrum that the Commission had assigned to Motient in the upper L-band that the United States had been unable to coordinate internationally for use by a U.S. licensee.[221] The Commission found that it was in the public interest to ensure that the existing MSS licensee was afforded sufficient spectrum to provide a viable service to remote and sparsely populated areas expeditiously, before opening up this spectrum to additional applications.[222] Similarly, in the *DEMS Relocation Order*,[223] the Commission, pursuant to Section 316, modified licenses to relocate the operations of certain Digital Electronic Message Service (DEMS) licensees from the 18 GHz band to the 24 GHz band, in order to accommodate Department of Defense military systems.

68. Here, we have determined that the subject license modifications clearly serve the public interest, convenience and necessity, as required by Section 316, because—as the record in this proceeding establishes—these modifications are essential components of the most effective and equitable band restructuring plan required to resolve serious and heretofore intractable interference problems—problems that have impaired and continue to impair public safety operations in the 800 MHz band.[224] As we stated at the outset of this *Report and Order*, to ensure that the Nation's public safety agencies can effectively carry out their Homeland Security obligations, we must remedy the problem of interference in the 800

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[218] *Teledesic LLC v. Federal Communications Commission*, 275 F.3d at 86.

[219] *See Rainbow Broadcasting v. FCC*, 949 F.2d 405, 410 (D.C. Cir. 1991)(*Rainbow Broadcasting*), in which the court held the Commission had the authority to allow noncommercial and commercial television licensees to exchange channels without exposing licensees to competing applications, despite third-party interest in acquiring swapped license. We disagree with commenters who assert that subsequent amendments in the Balanced Budget Act of 1997, which generally requires auctions whenever mutually exclusive applications for initial licenses are filed, change the applicability of these cases. *See* Attachment to Letter, dated April 2, 2004 from R. Michael Senkowski, Esq. to John Rogovin, General Counsel, Federal Communications Commission at 6. For the reasons we discuss at ¶ 73 *infra*, we believe that Section 309(j), as amended by the Balanced Budget Act, is consistent with our conclusion that we have the authority to avoid mutual exclusivity in this context if it is in the public interest to do so.

[220] Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Services in the Upper and Lower L-Band, *Report and Order*, 17 FCC Rcd 2704 (2002) (*MSS Order*).

[221] *MSS Order*, 17 FCC Rcd at 2795 ¶ 1.

[222] *MSS Order*, 17 FCC Rcd at 2713-2714 ¶ 25.

[223] Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz band and to Allocate the 24 GHz Band for Fixed Service, *Order*, 12 FCC Rcd 3471 (1997).

[224] *See* ¶ 61 *supra* and ¶¶ 213-216 *infra*.

MHz band and ensure that public safety agencies have access to sufficient spectrum. Relocating public safety users out of the 800 MHz band is not a viable option, for the reasons discussed at ¶ 207, *infra.* Without the removal of all of Nextel's 800 MHz spectrum below 817 MHz and the relocation of other licensees in the band (including public safety licensees), the spectrum-based problems facing public safety agencies in the 800 MHz band cannot be satisfactorily resolved. For practical reasons, we cannot place the financial burden of relocation on the thousands of incumbent non-cellular 800 MHz licensees, including state and local public safety agencies with very limited resources, and expect that the interference problem would be resolved in either a timely or acceptable manner. And, we would be failing to carry out our statutory duties as spectrum manager if we were to allow the current interference crisis to languish. By modifying Nextel's licenses to authorize operations in the 1.9 GHz band, we have created a mechanism to enable the band restructuring to occur without despite the significant, spectral, operational, financial and other obstacles. As the record demonstrates, this is the best option available to us.[225]

69. We also find that public safety rebanding does not trigger an auction requirement. We disagree with parties who argue that the *Ashbacker* doctrine and Section 309(j) of the Communications Act preclude us from granting the 1.9 GHz spectrum rights to Nextel pursuant to Section 316. In *Ashbacker*,[226] the Supreme Court held that under Section 309(a) of the Act,[227] in cases in which there are mutually exclusive applications for a license, the Commission must provide a hearing for each applicant. *Ashbacker*, however, did not preclude the Commission from adopting licensing mechanisms through its rulemaking process that foreclose competing applications. Subsequent to *Ashbacker*, Congress enacted Section 309(j) of the Act, which generally requires the Commission to dispose of mutually exclusive applications by auction.[228] Nothing in Section 309(j) requires the Commission to accept mutually exclusive applications in the first place. Moreover, Section 309(j) applies only to initial licenses. As noted above, the D.C. Circuit has found that reassignments to new spectrum are not fundamental changes to the original licenses that themselves trigger the requirements for license revocation and reissuance.[229] Here, our order changing the frequency of licensees' facilities neither triggers a right to file competing applications under *Ashbacker* nor compels an auction pursuant to Section 309(j). As the court found in the *Rainbow* case,[230] the Commission is not required to open all frequencies for competing applications, as long as it provides a reasoned explanation of its decision not to do so. These principles are consistent with other Commission decisions where we modified licenses pursuant to Section 316. For example, in the *MSS Order*, where the Commission exercised its authority under Section 316 to assign to one licensee the rights for up to twenty megahertz of open spectrum, the Commission found that the proceeding "did not

[225] *See* ¶¶ 217-222 *infra.*

[226] *Ashbacker v. FCC*, 326 U.S. 327 (1945).

[227] 47 U.S.C. § 309(a). This provision authorizes the Commission, upon examination of an application for a station license, to grant it if the Commission determines that the public interest, convenience, and necessity would be served by the grant.

[228] 47 U.S.C. § 309(j)(1) provides "[i]f, consistent with the obligations described in paragraph (6)(e), mutually exclusive applications are accepted for any initial license or construction permit, then . . . the Commission shall grant the license or permit to a qualified applicant through a system of competitive bidding that meets the requirements of this subsection."

[229] *See Community Television, Inc. v. FCC*, 216 F.3d 1133, n. 229 *supra.*

[230] *Rainbow Broadcasting*, 949 F.2d at 409-410.

involve initial applicants and the hearing rights of eligible new applicants under Section 309."[231]

70. We also disagree with parties who argue that the 1.9 GHz spectrum to be assigned to Nextel is so much more valuable than the spectrum it is currently authorized to operate that the difference elevates the modification process to a "grant of an initial license, which under Section 309(j) [must] be subject to auction procedures."[232] To support this position, CTIA cites the Commission's *Competitive Bidding Second Report and Order* in which it adopted rules for competitive bidding pursuant to Section 309(j):

> Where a modification would be so major as to dwarf the licensee's currently authorized facilities and the application is mutually exclusive with other major modifications or initial applications, the Commission will consider whether these applications are in substance more akin to initial applications and treat them accordingly for purposes of competitive bidding.[233]

71. As a preliminary matter, the modification of Nextel's licenses does not create a circumstance in which an "application is mutually exclusive with other major modifications or initial applications." The Commission has accepted no other applications for the 1.9 GHz spectrum.[234] At least one commercial provider has stated its intention to participate in an "immediate auction of the 1.9 GHz spectrum."[235] Nevertheless, we have not authorized the filing of applications for this spectrum, have never proposed to do so, and, for the reasons set forth herein relating to important public safety concerns, conclude that it is not in the public interest to open the spectrum for competitive applications.

72. The above-quoted language from the *Competitive Bidding Second Report and Order* also indicates that the Commission "will consider" the nature of the modification if it works a major change, and this is exactly what we have done here. The plan we adopt today places Nextel in a comparable position to that which it now occupies and contains a cash payment mechanism that would become effective if necessary to ensure that Nextel does not reap a windfall from savings in reconfiguration costs. As detailed elsewhere in this *Report and Order*, we have found that the license modifications that we are ordering in this proceeding clearly promote the public interest, convenience, and necessity, as required by Section 316, and that an alternative process that does not assign the 1.9 GHz band for use in connection

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[231] *MSS Order* 17 FCC Rcd at 2175 ¶ 27. *See also* Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz band and to Allocate the 24 GHz Band for Fixed Service, *Memorandum Opinion and Order*, 13 FCC Rcd 15147 at 15173 ¶ 59 (1998) ("Because its actions [to relocate *DEMS* licensees to new spectrum] were license modifications under authority of Section 316, and did not involve the grant of initial licenses, the Commission was not authorized under 309(j) of the Act to use auction procedures.").

[232] *See, e.g.*, U.S. Cellular Comments at 5; CTIA December 4, 2003 *Ex Parte* at 8.

[233] CTIA December 4, 2003 *Ex Parte* at 8-9, *citing Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, PP Docket No. 93-253, *Second Report and Order*, 9 FCC Rcd 2348, 2355 ¶ 37 (1994).

[234] Verizon Wireless submitted a ULS application and a Form 175 application for the 1910-1915 MHz/1990-1995 MHz band but these applications were dismissed on July 7, 2004. *See* Letter, dated July 7, 2004, from Kathryn Garland, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission to John T. Scott, III, Cellco Partnership d/b/a Verizon Wireless; Letter, July 7, 2004, from Wireless Telecommunications Bureau to John T. Scott, III, Cellco Partnership d/b/a Verizon Wireless.

[235] Verizon Wireless White Paper at 9 (April 1, 2004) citation omitted

with the public safety rebanding would, at best, provide fewer and less effective public interest benefits[236]

73. Moreover, Section 309(j) supports our conclusion that we have the authority to avoid mutual exclusivity in this context when it is in the public interest to do so. Although 309(j) generally requires auctions whenever mutually exclusive applications for initial licenses are filed, Section 309(j)(6)(E) provides that "[nothing in this subsection shall] be construed to relieve the Commission of the *obligation in the public interest* to continue to use engineering solutions, negotiation, threshold qualifications, service regulations, and other means in order to avoid mutual exclusivity *in application and licensing proceedings.*"[237] Thus, in Section 309(j)(6)(E), Congress recognized that the Commission can determine that its public interest obligation warrants action that avoids mutual exclusivity, and that this obligation extends to "application and licensing proceedings" (which include license modifications), not just initial licensing matters. Other provisions of the Act confirm our conclusion that the auction requirements of Section 309(j), with their statutory limitations and qualifications that recognize the existence of potentially higher public uses for spectrum, do not preclude our furtherance of the public interest by adopting a band restructuring approach that avoids mutual exclusivity, promotes public safety, and provides Nextel access to substitute spectrum with which it may continue the development of its

[236] Similarly, we disagree with parties who assert that under *Fresno Mobile Radio v. FCC,* 165 F.3d 965 (D.C. Cir. 1999), the grant of the 1.9 GHz spectrum must be considered an "initial license" subject to auction under Section 309(j). *See Verizon White Paper at 10-11 and CTIA Ex Parte* (December 4, 2003) at 8-9. In *Fresno*, a group of incumbent licensees challenged the Commission's decision to auction newly established geographic-area SMR licenses in the upper 200 channels of the SMR band, arguing that, to the extent the new licenses did not cover a new service, new territory or previously unused spectrum, the Commission should have treated the SMR authorizations as modifications of the incumbents' existing licenses and not as auctionable "initial licenses" within the meaning of Section 309(j)(1). The court disagreed, upholding the Commission's determination that it could classify a new license as an "initial" one, even if the initial and preexisting licenses have such overlap, "if it is the first awarded for a particular frequency under a new licensing scheme, that is, one involving a different set of rights and obligations for the licensee." *Fresno*, 165 F.3d at 970. As explained above, we do not consider the authorizations that Nextel will hold as a result of the restructuring process to differ significantly enough—in terms of rights and responsibilities—from Nextel's existing authorizations so as to warrant treatment as the issuance of an initial license rather than as a modification of license. Moreover, even if we were to classify the 1.9 GHz authorization as a matter of initial licensing, we have not authorized the filing of mutually exclusive applications; none are, in fact, on file; and, as discussed in ¶ 73, *infra,* we have the authority—and obligation—to impose threshold qualifications that preclude the filing of such mutually exclusive applications if we determine that the public interest requires such an approach.

[237] 47 U.S.C. §309(j)(6)(E) *(emphasis added).* The legislative history of the Balanced Budget Act of 1997 also makes clear that Congress did not want the Commission to interpret its expanded auction authority in a way that would reduce its Section 309(j)(6) (E) obligation: "[T]he conferees emphasize that, notwithstanding its expanded auction authority, the Commission must still ensure that its determinations regarding mutual exclusivity are consistent with the Commission's obligations under section 309(j)(6)(E). The conferees are particularly concerned that the Commission might interpret its expanded competitive bidding authority in a manner that minimizes its obligations under section 309(j)(6)(E), thus overlooking engineering solutions, negotiations, or other tools that avoid mutual exclusivity." H.R. Conf. Rep. No. 105-217, 105th Cong., 1st Sess., at 572 (1997). *See also* Commission's Rules Regarding Multiple Address Systems, *Report and Order*, 15 FCC Rcd11956, 11962-63 (2000) ("Section 309 (j)(6) (E) has been construed to give the Commission broad authority to create or avoid mutual exclusivity in licensing, based on the Commission's assessment of the public interest," *citing DirectTV, Inc. v. FCC*, 110 F.3d 816, 828 (D.C. Cir. 1997)). *Cf. Benkelman Telephone Co. v. FCC*, 220 F.3d 601, 605-606 (D.C. Cir. 2000) (Section 309(j)(6)(E) neither requires the Commission to avoid mutual exclusivity, nor to create it; the touchstone is what best serves the public interest).

services.[238]

74. We also note that, as an alternative licensing approach toward the same end, we could have exercised our authority to grant rights to the ten megahertz of spectrum to Nextel as an initial license, without subjecting the spectrum to competitive bidding procedures. The auction requirement of Section 309(j)(1) applies only when the Commission has accepted mutually exclusive applications for an initial license. As with a license modification approach, under an initial licensing scenario, eligibility for the 1.9 GHz spectrum would have to be limited to Nextel for the restructuring plan to address satisfactorily the public interest imperatives that we have identified. That eligibility restriction would be justified in the initial licensing context on the same public interest grounds that we have discussed above in connection with our authority to modify licenses under Section 316.[239]

75. Our authority to require a cash payment from Nextel in the future if needed to prevent a windfall that otherwise might flow from its new rights to use the 1.9 GHz spectrum derives from Sections 4(i) and 303(r) of the Act.[240] Consistent with the public interest and Nextel's own proposal, Nextel has agreed to assume financial responsibility for reconfiguring the 800 MHz band. As explained below, however, we cannot be certain what Nextel's ultimate costs of fulfilling that obligation will be.[241] If those reconfiguration costs are unexpectedly high, then Nextel nevertheless will be obligated to incur them. The cash payment mechanism we adopt here addresses the converse possibility that reconfiguration costs will be relatively low. In that situation, the terms of the spectrum exchange with Nextel will reflect those savings, maintaining an equitable exchange. In this way, savings in reconfiguration expenses will be realized as a public benefit (*i.e.*, a payment to the U.S. Treasury), rather than providing Nextel an unwarranted windfall from the license modification.

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[238] *See* 47 U.S.C. § 151 (listing as one of Act's central purposes "promoting safety of life and property through the use of wire and radio communication"). *See also* 47 U.S.C. §§ 303(c) (instructing the Commission to assign frequencies to individual stations as the public convenience, interest or necessity requires), 309(j)(6)(C) (providing 309(j) should not be construed to diminish the authority of the Commission to regulate or reclaim spectrum licenses); 309(j)(7) (prohibiting Commission from basing the decision whether to auction spectrum on a desire for federal revenue); 309(j)(2)(A) (setting out auctions exemption for public safety radio service licenses, thus recognizing that auctions may not always serve the public interest in connection with public safety licensing), and 309(j)(6)(G) (providing that Section 309(j) shall not be construed to prevent the Commission from awarding licenses to persons who make significant contributions to the development of new telecommunications services or technologies).

[239] The Supreme Court upheld the Commission's authority to limit eligibility to apply for a license where the Commission was able to demonstrate that doing so furthered the public interest. *See United States v. Storer Broadcasting Company*, 351 U.S. 192, 202 (1956). *See also* 47 U.S.C. § 309 (j)(3), which directs that "in specifying eligibility [,] . . . the Commission shall include safeguards to protect the public interest in the use of the spectrum and shall seek to promote the purposes specified in section 1 of this Act."

[240] Section 4(i) of the Act provides that "[t]he Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions." 47 U.S.C § 154. Section 303(r) provides that "the Commission . . . as public convenience, interest, or necessity requires shall [m]ake such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act..." 47 USC § 303 (r). *See United States v. Storer Broadcasting*, 351 U.S. 192, 202 (1956) (finding that these provisions "grant general rulemaking power not inconsistent with the Act or law").

[241] *See* ¶ 179 *infra*.

76. The situation here is analogous in key regards to that addressed in the *Mtel* case,[242] where the court upheld the Commission's authority under Section 4(i) to impose a payment requirement on a licensee holding a pioneer's preference license that the Commission had originally awarded without a payment requirement. Specifically, the court upheld the Commission's authority to require payment under Section 4(i) to "ensure the achievement of the Commission's statutory responsibility to grant a license only where the grant would serve the public interest, convenience and necessity [pursuant to Section 309(a)]."[243] The court "accord[ed] substantial deference to the Commission's judgment regarding how the public interest is best served" and cited with approval specific public interest concerns that the Commission Order suggested that the payment requirement would satisfy, including elimination of the possibility of unjust enrichment and "predation by a deep-pocketed Mtel."[244] Similar to the payment requirement that was upheld in *Mtel*, in this *Report and Order* we impose a payment requirement pursuant to Section 4(i) and Section 303(r) to ensure that we fulfill our statutory responsibility to modify a license only where the grant would promote the public interest, convenience and necessity. Here, the public interest rationale is at least as compelling as in *Mtel*. In this case, requiring a payment allows us to address the interference problems in the 800 MHz band and provide public safety agencies with additional spectrum rights in a way that places Nextel in a comparable position to that which it now occupies. While addressing public safety concerns is a priority of the highest order, it is in the public interest to do so in a way that does not result in a windfall for Nextel. The anti-windfall payment addresses uncertainty about the exact amount of relocation costs for the 800 MHz band and the 1.9 GHz band. The plan obliges Nextel to pay the costs in the 800 MHz band and its share of the costs in the 1.9 GHz band, no matter how low or high they are. For example, if the costs are at the low end of Nextel's estimates,[245] we find that it is in the public interest that the savings benefit the public, rather than Nextel. And similar to the *Mtel* case, the windfall payment also addresses concerns that assigning Nextel spectrum rights in another band as part of this comprehensive solution is unfair because Nextel is receiving free spectrum while its competitors must bid for spectrum at auction.[246] For the reasons discussed elsewhere in this *Report and Order*, reducing the amount of 1.9 GHz spectrum granted to Nextel is not a reasonable way of protecting against such a windfall.[247] By contrast, the alternative approach of requiring a payment from Nextel to maintain an exchange commensurate with the value of the spectrum it is receiving furthers the public interest objectives of the Communications Act and is consistent with the policy Congress articulated in Section 309(j) of "recover[ing] for the public of a portion of the value of the public spectrum resource made available for commercial use and avoidance of unjust enrichment through the methods employed to award uses of that resource."[248]

77. Some parties in this proceeding have addressed the intersection of the Commission's authority

[242] *Mtel v. FCC*, 77 F.3d 1399 (D.C. Cir. 1996).

[243] *Id.* at 1406.

[244] *Id.*

[245] *See* ¶ 299 *infra.*

[246] *See* ¶ 214 *infra.*

[247] *See* ¶¶ 236-238 *infra.*

[248] 47 USC § 309 (j)(3)(C). Since an auction of 1.9 GHz licenses is incompatible with the approach adopted herein for solving the 800 MHz band interference problems that compromise the public safety, we have fashioned an alternative that is consistent with our competitive bidding authority and otherwise within our statutory authority.

under the Communications Act and the Commission's responsibilities under other federal statutes. In particular, we received several *ex parte* presentations[249] addressing the question of whether the spectrum management plan and license modifications that we approve above violate appropriations statutes including the Anti-Deficiency Act (ADA),[250] the Miscellaneous Receipts Act (MRA)[251] and 18 U.S.C. § 641.[252] The Comptroller General has agreed at the request of a U.S. Senator to review the appropriations issues that parties have raised.[253]

78. In light of the substantial importance of these issues, we have carefully reviewed the arguments raised in the various presentations and conducted our own, independent analysis of the various legal constraints under which the Commission operates. After this deliberate consideration, we have determined that our statutory obligation to ensure the public safety through our administration of spectrum justifies this order even in the face of the opposition of certain participants in this proceeding. Having reviewed these parties' arguments, we conclude, as discussed below, that appropriations law does not bar the course we pursue in this order. Indeed, we conclude that we would be remiss in our obligations to the public safety community—and indeed to the public at large—if we did not adopt the plan in the form discussed below.[254]

79. The ADA prohibits any "officer or employee of the United States Government or of the District of Columbia government" from "involv[ing] either government in a contract or obligation for the payment of money before an appropriation is made unless authorized by law."[255] The object of this provision is to prevent executive officers from involving the government in expenditures or liabilities beyond those contemplated and authorized by the lawmaking power.[256] The first government-wide ADA was passed in 1870.[257] The MRA provides that a government official "receiving money for the Government from any source shall deposit the money in the Treasury as soon as practicable without deduction for any charge or claim."[258] Congress passed the statute in 1849 to address its concern that some executive branch officers, such as customs officers, were failing to deposit all the money they collected in the course of their duties into the treasury, making deductions for their expenses and salaries

[249] *See* Letter, dated June 28, 2004, from William Barr, Verizon to Michael Powell, Chairman, Federal Communications Commission (Verizon Wireless June 28 *Ex Parte)*; Letter dated June 29, 2004, from Walter Dellinger to Michael Powell, Chairman, Federal Communications Commission; Letter, dated July 1, 2004, from Richard Thornburgh to Michael Powell, Chairman, Federal Communications Commission.

[250] The Anti-Deficiency Act, 31 U.S.C. § 1341(a)(1)(B).

[251] The Miscellaneous Receipts Act, 31 U.S.C. § 3302(b).

[252] Section 641 of Title 18 concerns the embezzlement and theft of public money, property or records and imposes criminal liability on "whoever . . . without authority, sells, conveys, or disposes of anything of value of the United States or of any department or agency thereof." Our actions today are authorized and clearly do not implicate this provision.

[253] *See* Verizon Wireless June 28 *Ex Parte* at 6.

[254] *See* ¶¶ 151-158, *infra*.

[255] 31 U.S.C. § 1341(a)(1)(B).

[256] 21 Atty.Gen. Op. 248 (1895).

[257] Act of July 12, 1870,ch. 251, § 7, 16 Stat. 251.

[258] 31 U.S.C. § 3302(b).